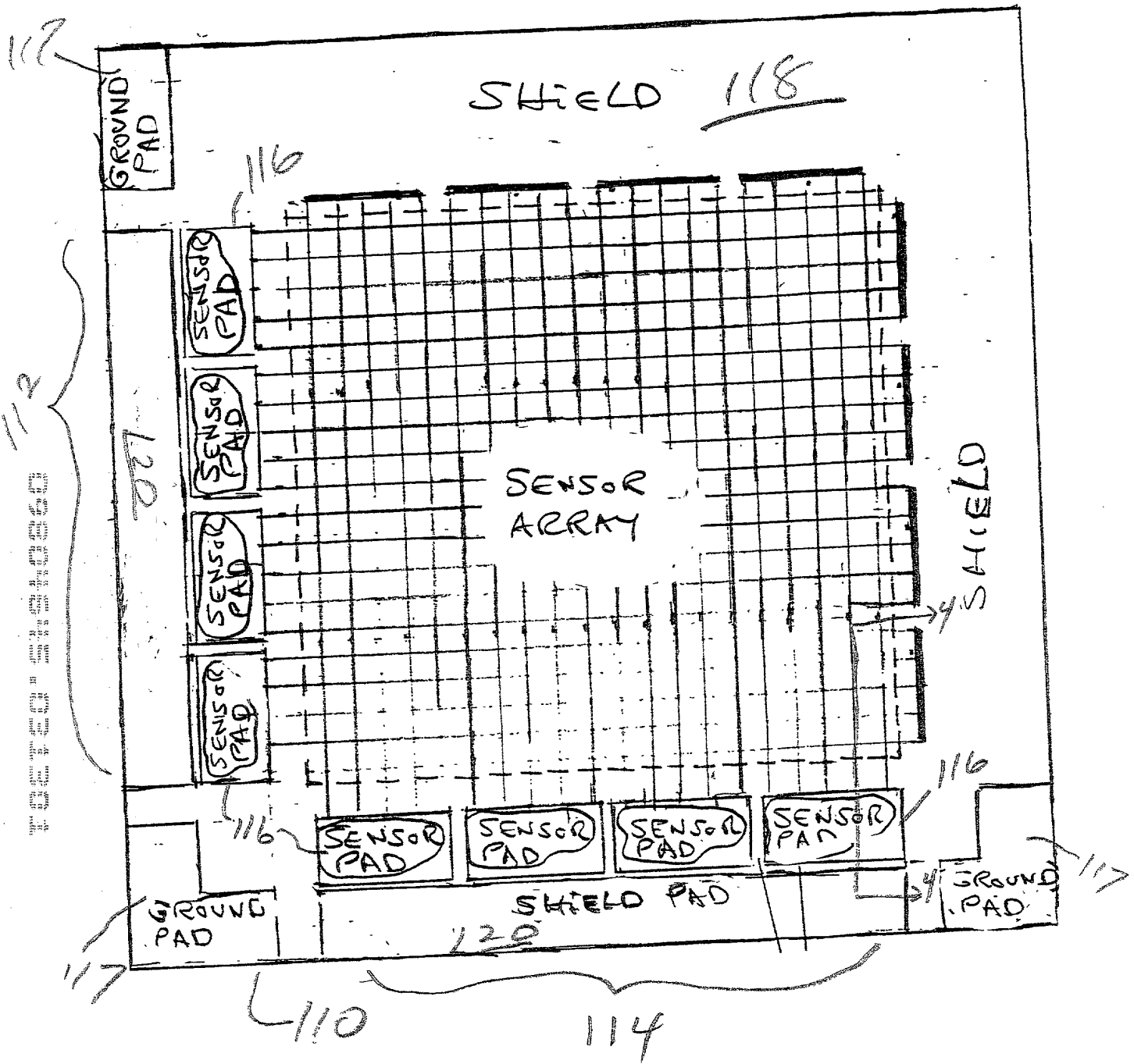


FIG. 1

FIG. 1 is a perspective view of a system 100. The system 100 includes a rectangular box 101. The box 101 has a grid 110 on its base. A finger 201 is shown touching the grid 110. A control unit 1062 is connected to the box 101 by a cable. The control unit 1062 has a display and buttons. The entire assembly is labeled 100.



F14.2

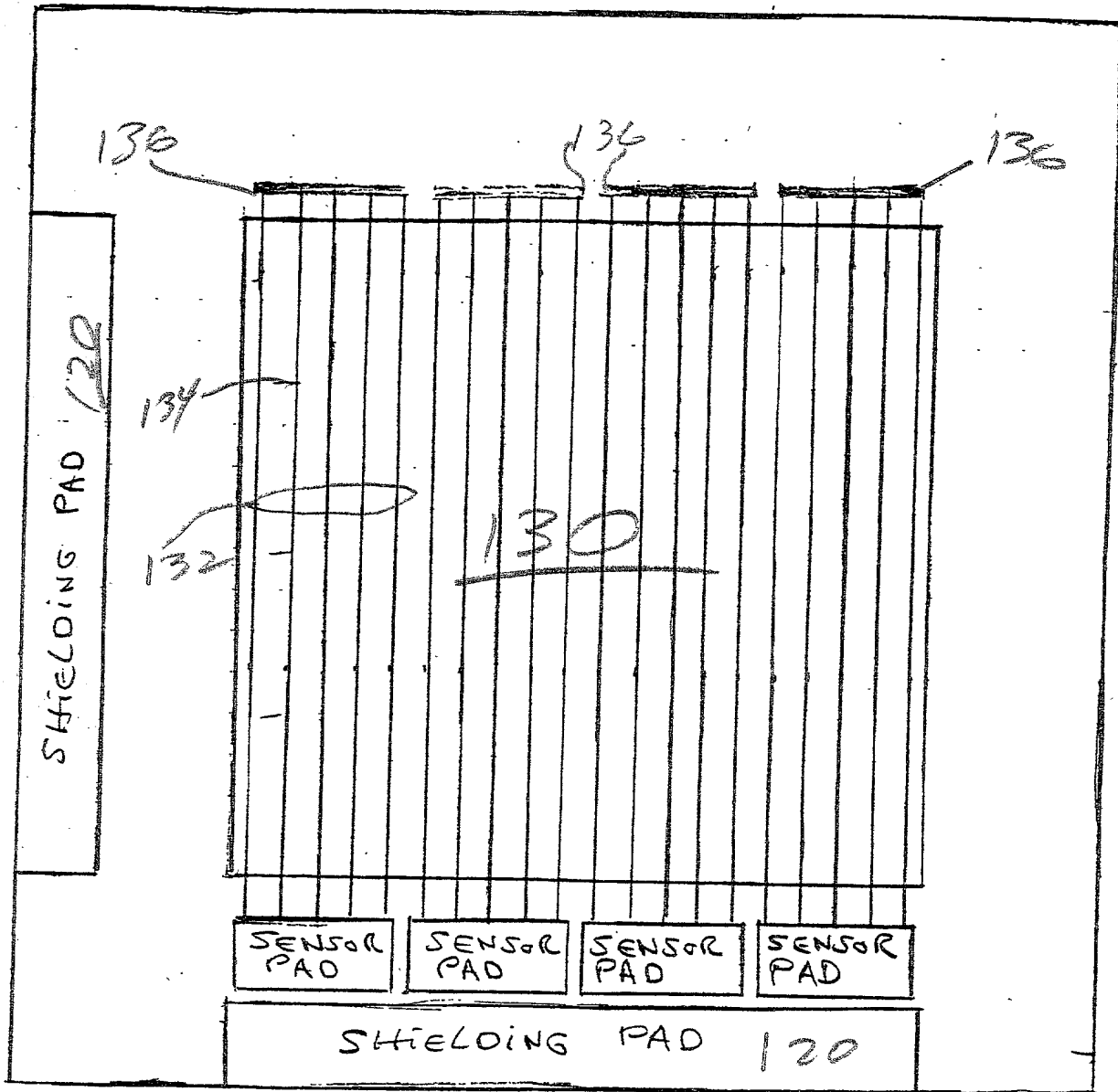


FIG. 3

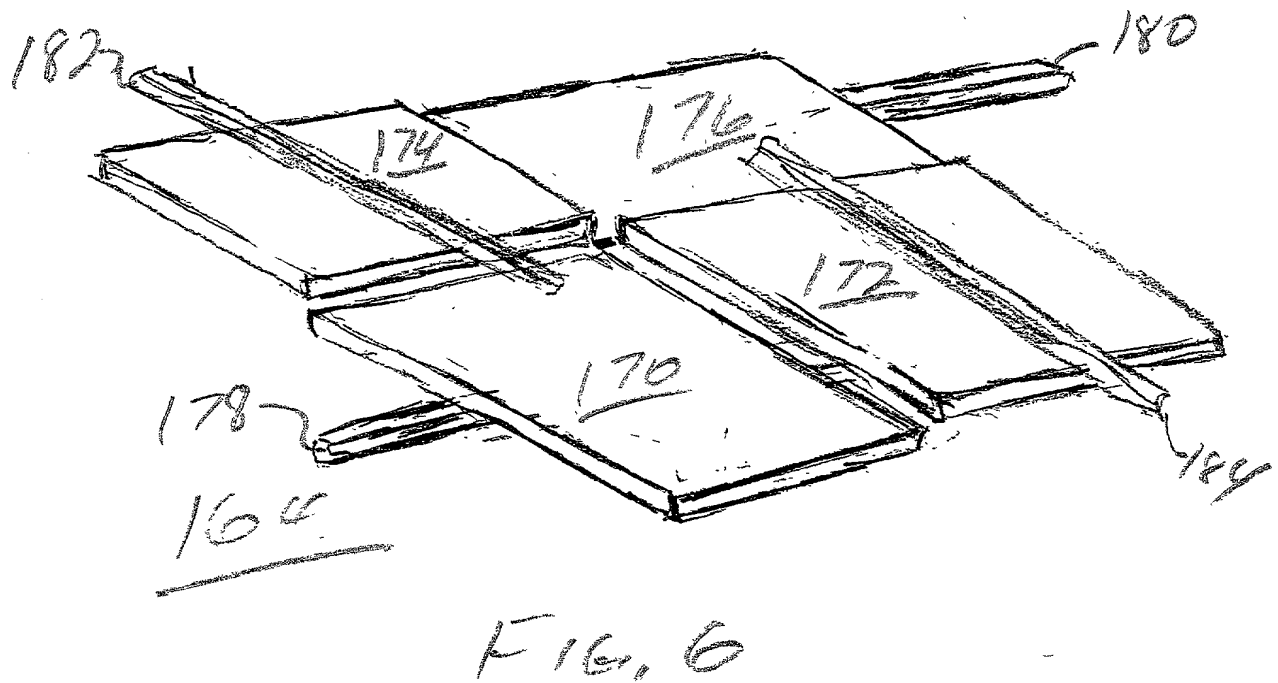
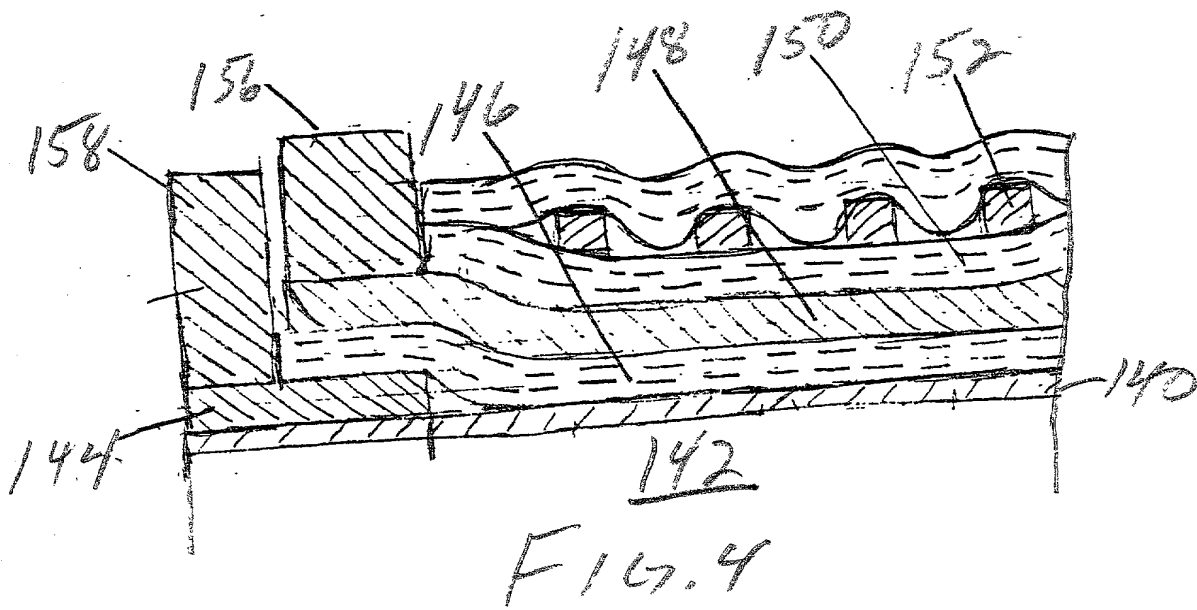


FIG. 5 is a block diagram of a system for processing data from a sensor array. The system includes a sensor array 162, a multiplexer 160, a processor 166, an A/D converter 164, an amplifier 163, and a master multiplexer 161. The sensor array 162 is connected to the multiplexer 160, which is connected to the processor 166. The processor 166 is connected to the A/D converter 164, which is connected to the amplifier 163. The amplifier 163 is connected to the master multiplexer 161, which is connected to the processor 166. The master multiplexer 161 is also connected to the A/D converter 164. The system is powered by a voltage source V_{ref}.

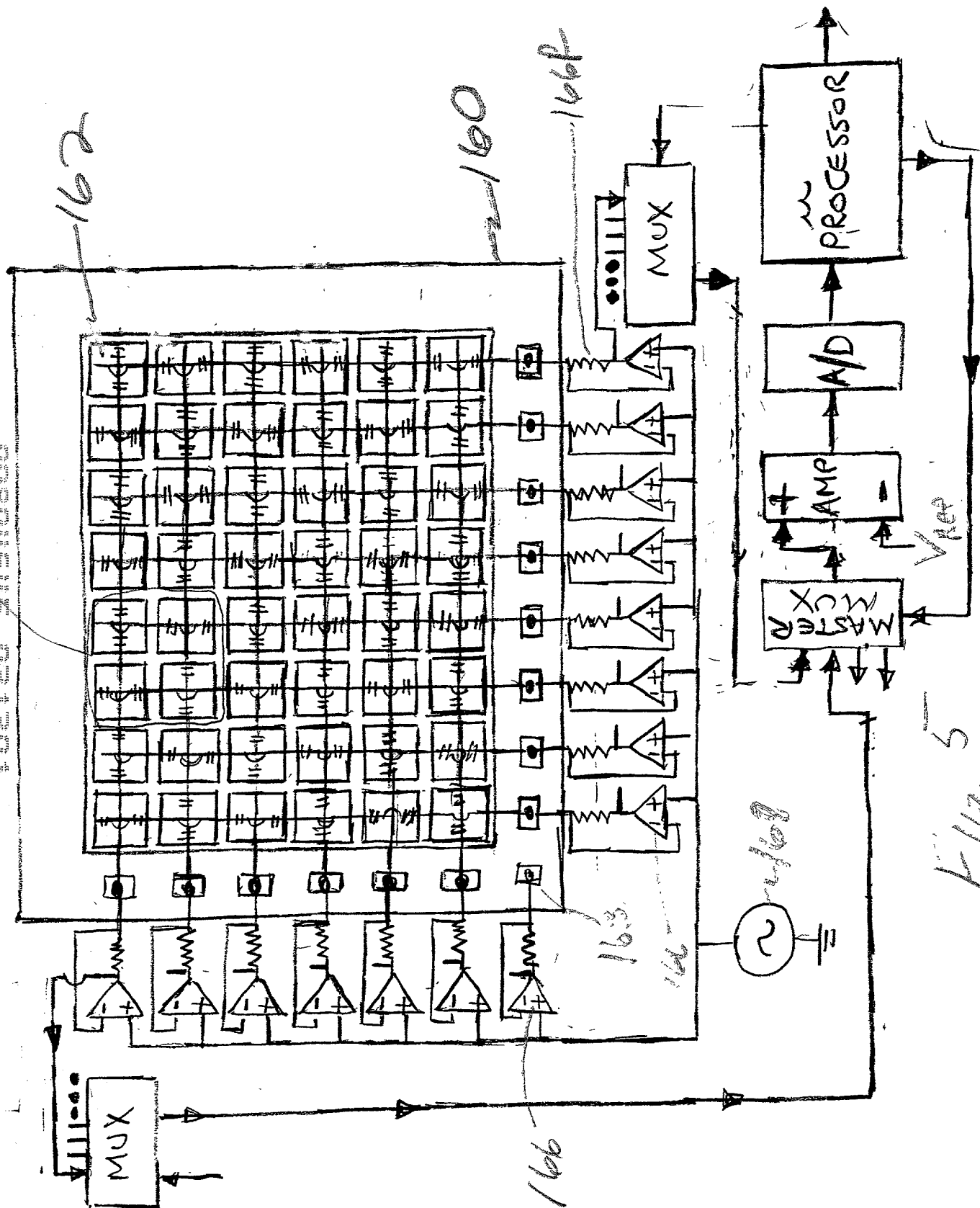


Fig. 5

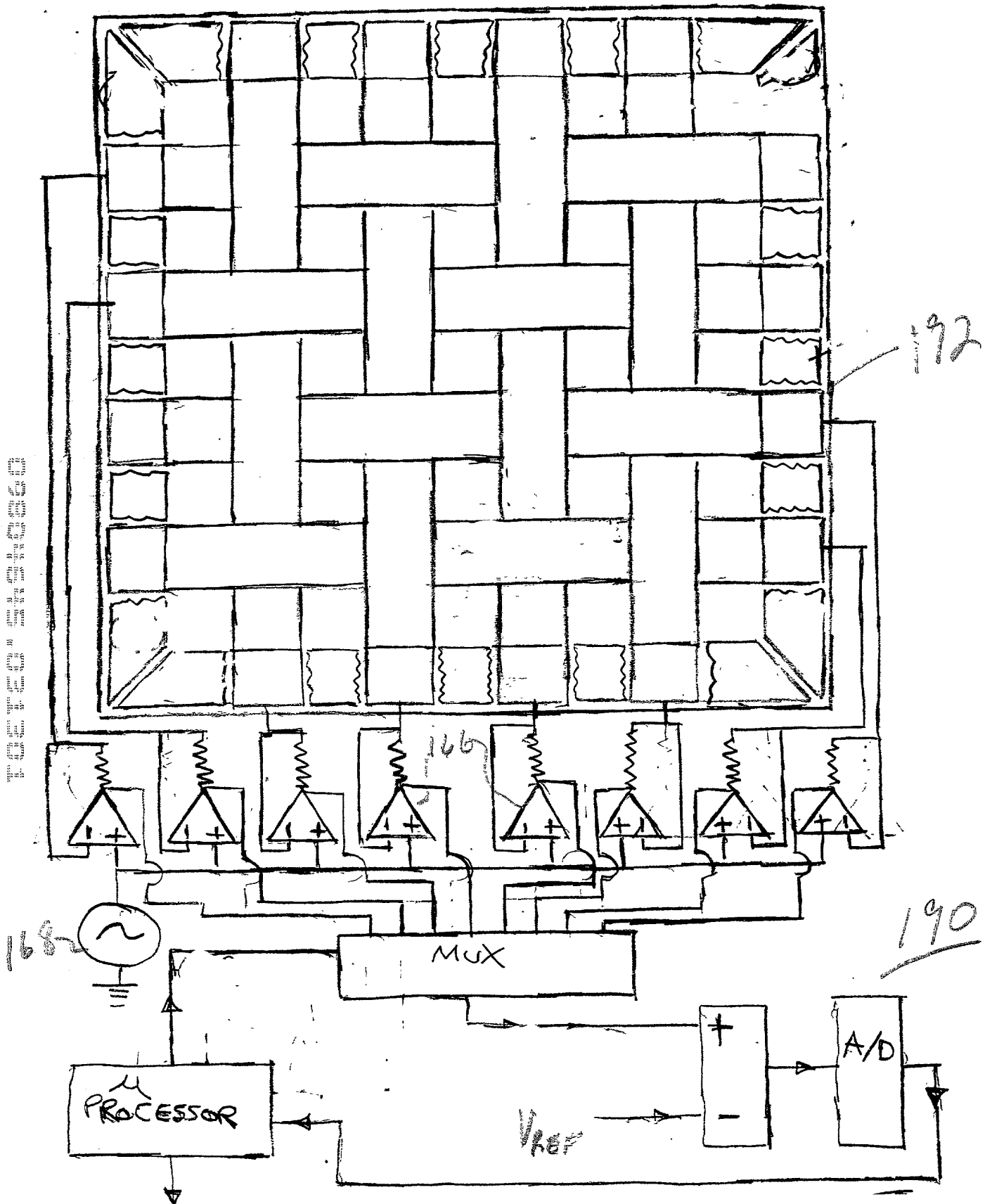


Fig. 7

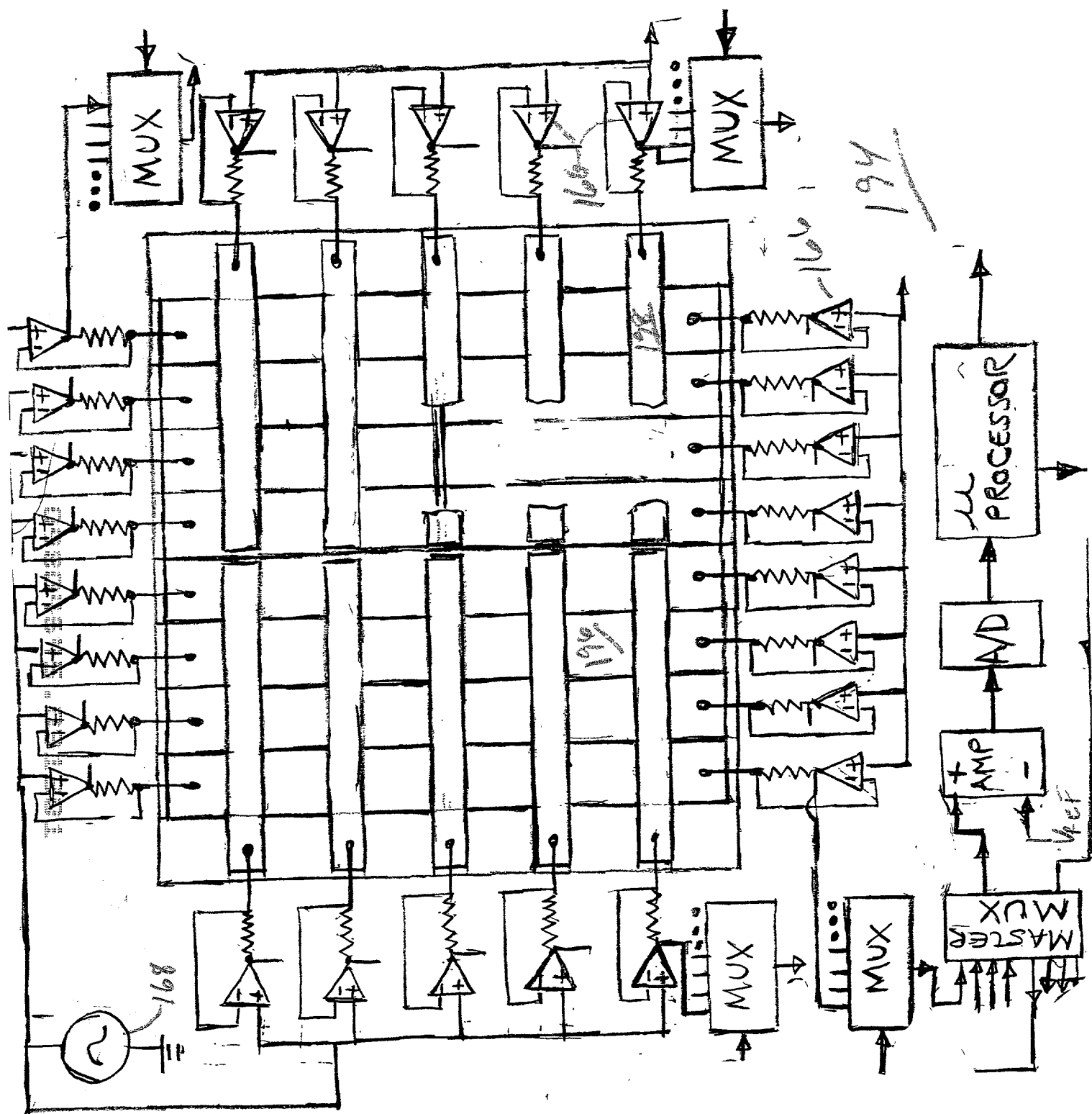


Fig. 8

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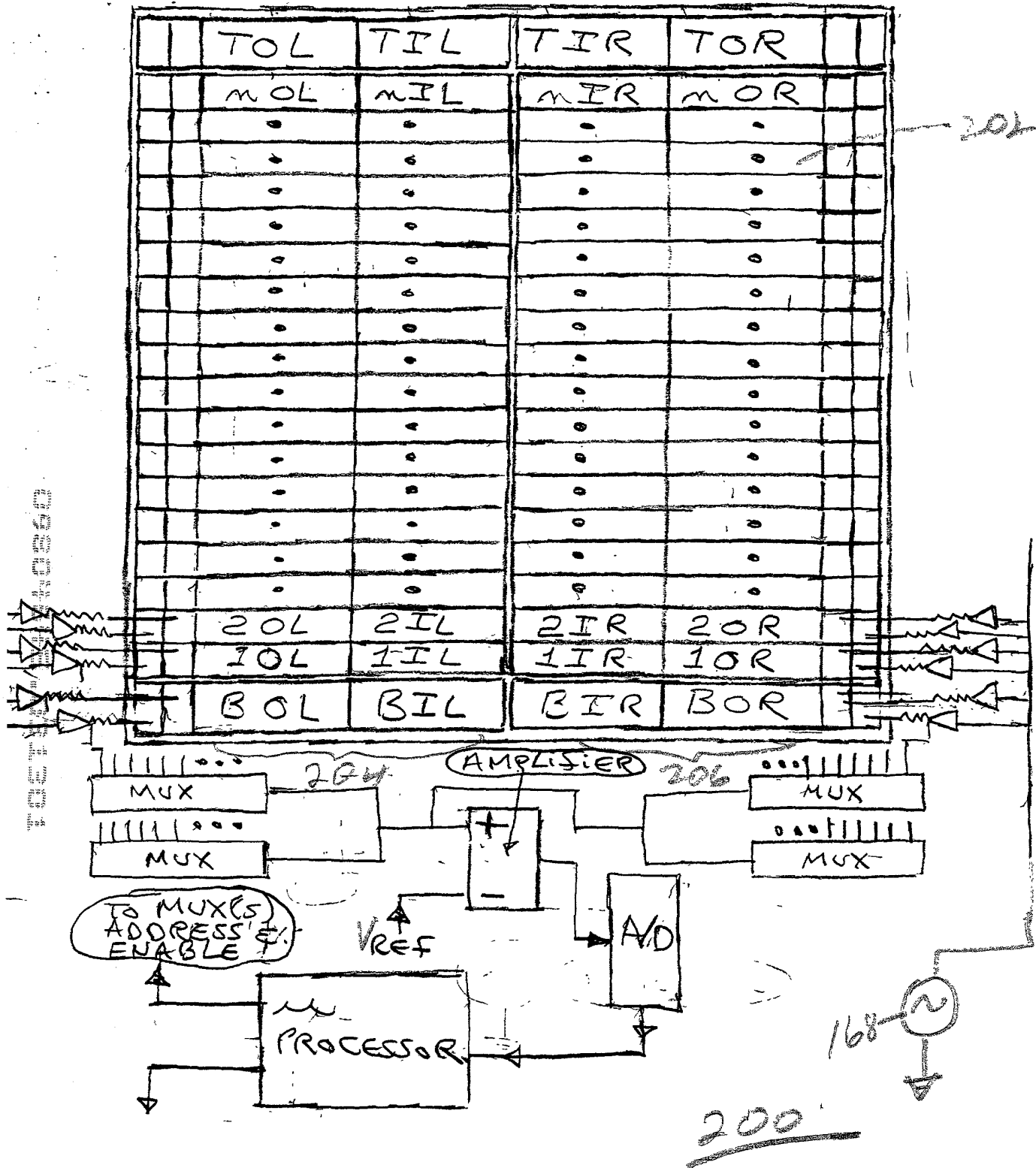


Fig. 9

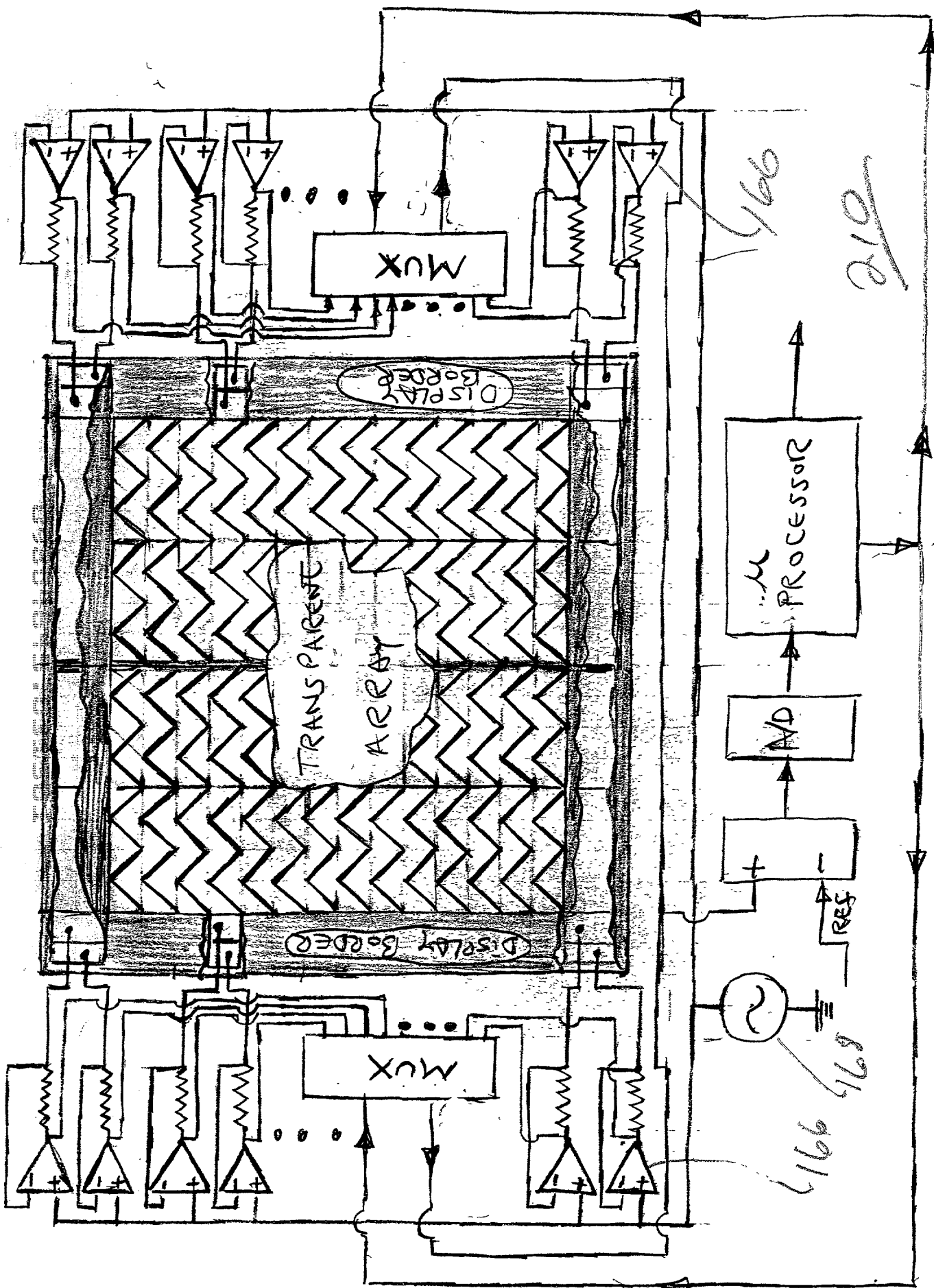


Fig. 10

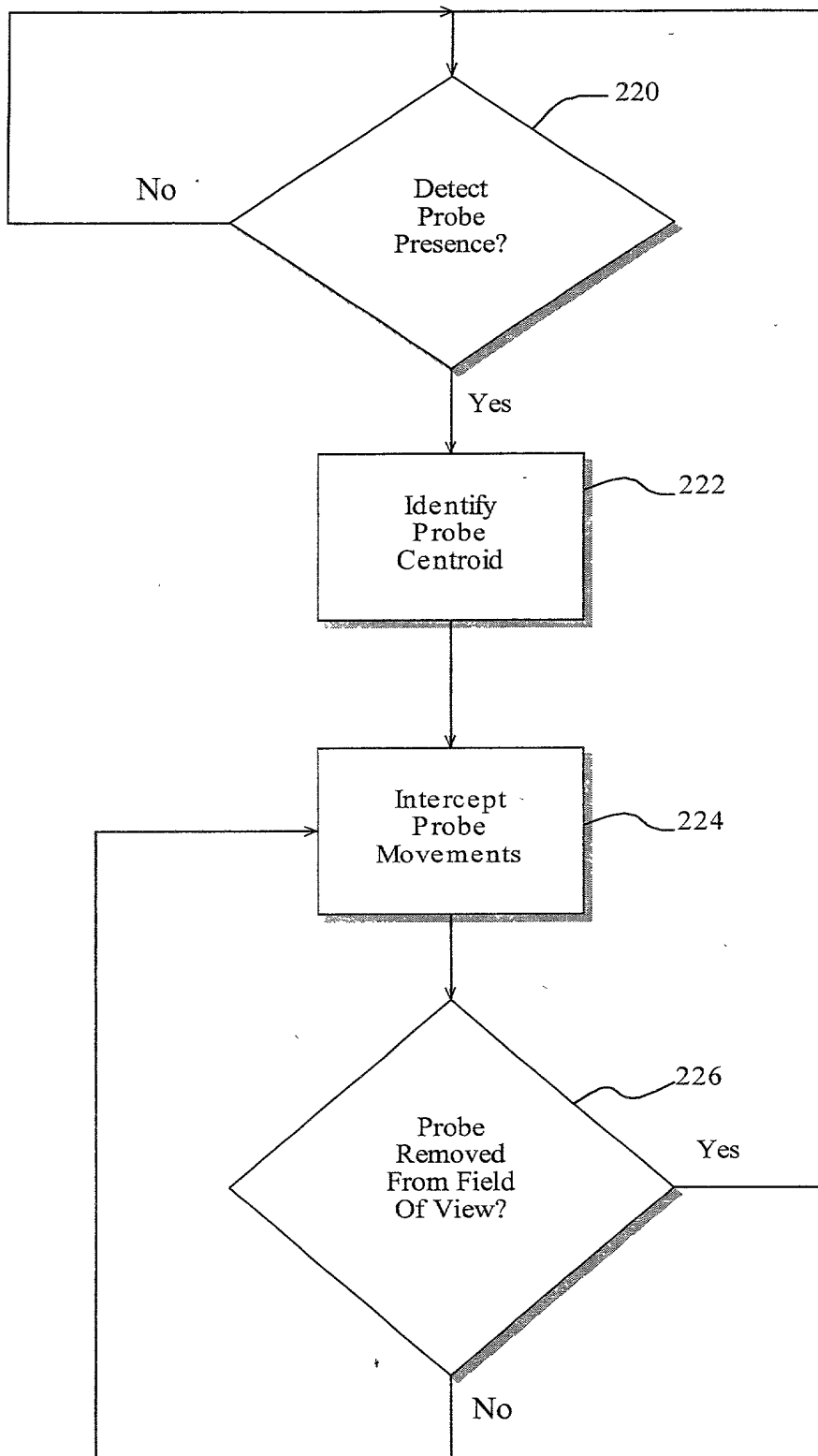
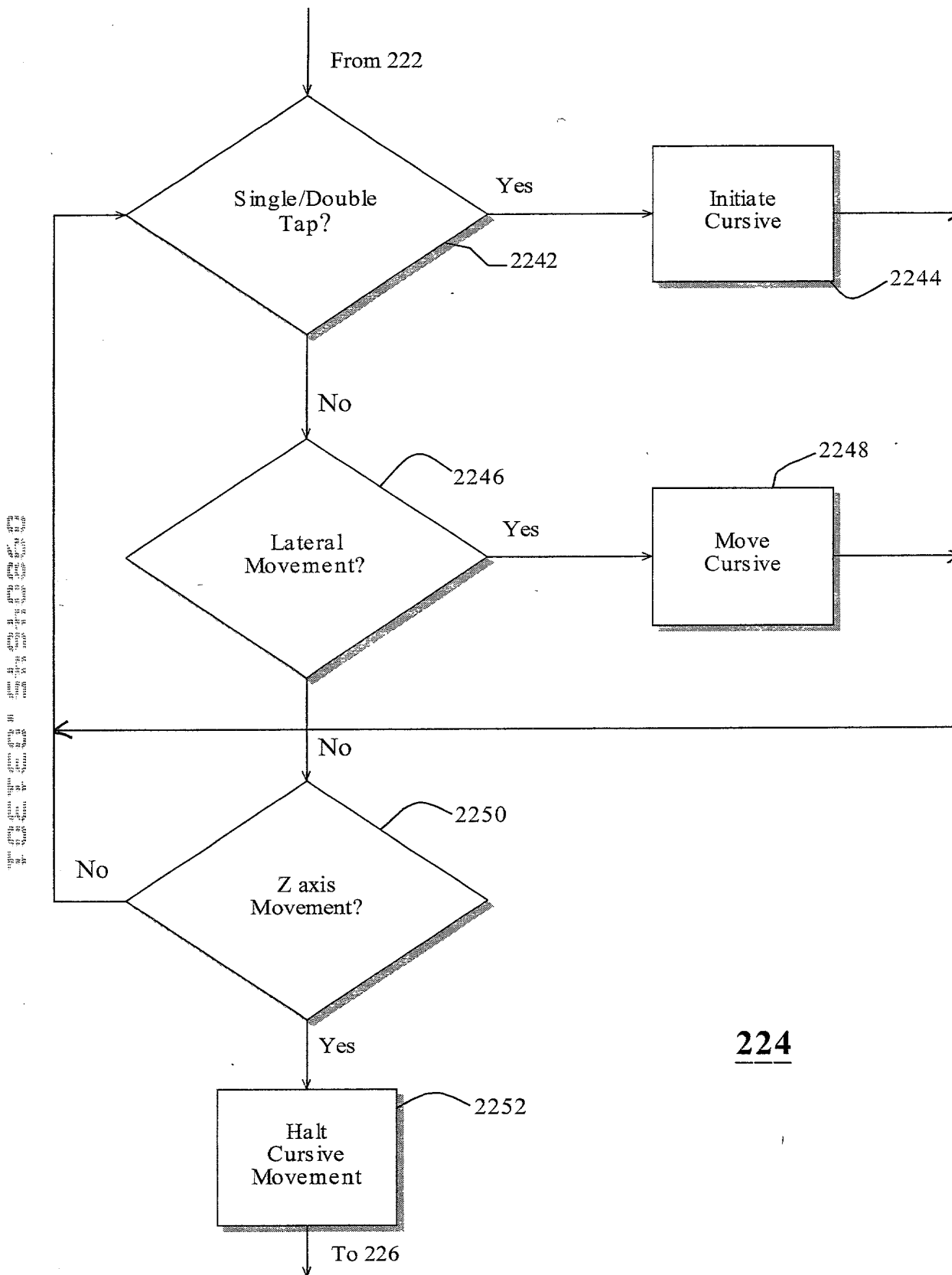


Fig. 11A



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Fig. 11B

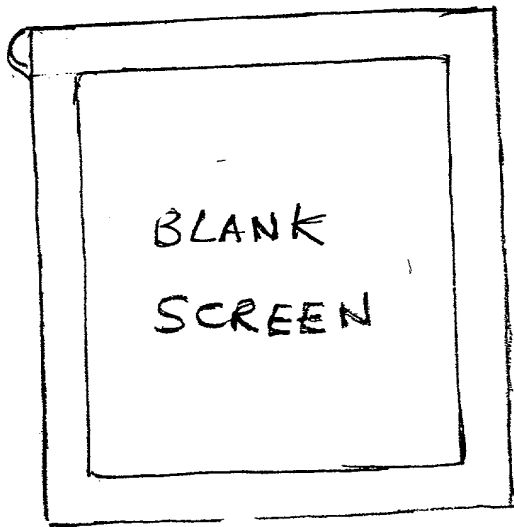


Fig. 10a.

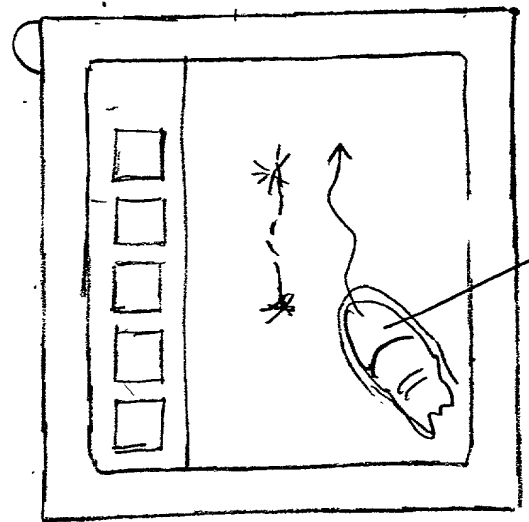


Fig. 12d.

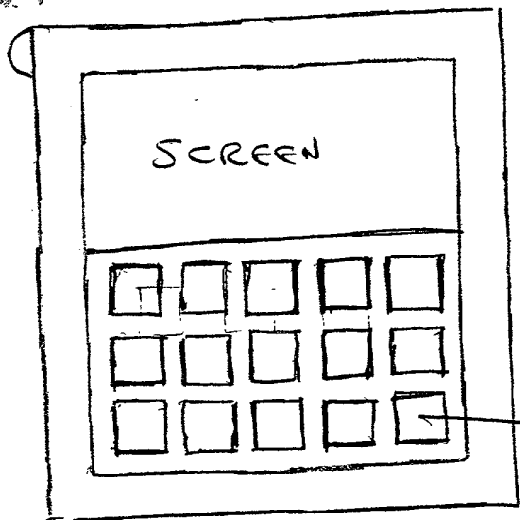


Fig. 12b.

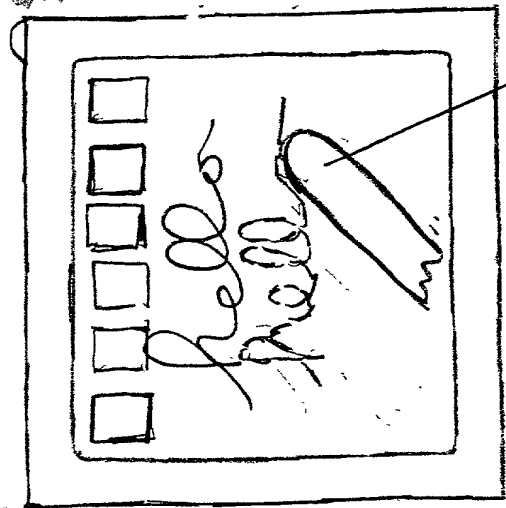


Fig. 12e.

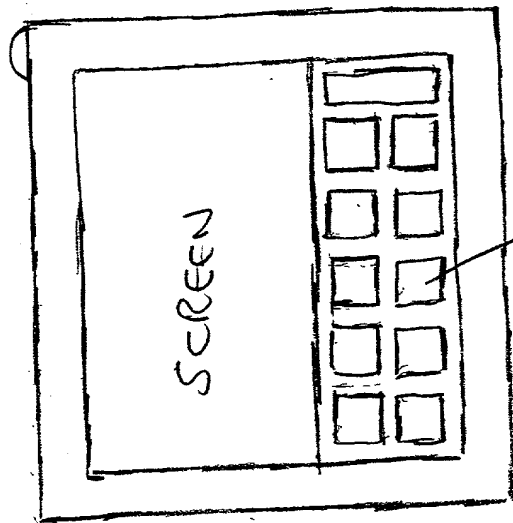


Fig. 12c.

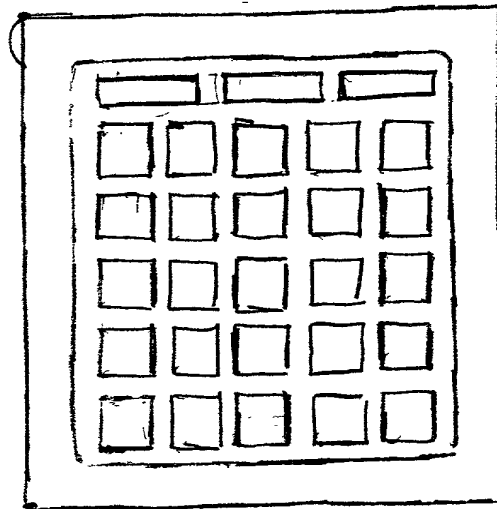


Fig. 12f.